

## **Procedure for Submitting Updates of GIS Parcel Data for PAMS**

To support the PAMS project, NJOIT Office of GIS (NJOIT/OGIS) is responsible for obtaining parcel data from the counties and hosting a single GIS parcel layer for all parts of the state that have completed parcel mapping. That parcel layer will appear in the mapping modules of PAMS. It is important to note that the state will not be performing routine maintenance of the parcel data. Updating parcel boundary data remains a local government responsibility, performed either at the municipal or county level. NJOIT/OGIS is simply collecting current data from the local level and making it available in a combined layer to support PAMS and other projects.

Users of the PAMS system may encounter situations in which the tabular data in PAMS has been updated to reflect changes such as subdivisions, but the same change does not appear in the GIS data. In these cases, the result will be that when newly created records in PAMS are selected, the mapping modules of PAMS will not be able to display a corresponding lot in the map viewer.

Assessors and other PAMS users are an important source of information for keeping the GIS data up to date, and it is important for them to know the update process in their locality. In some instances the GIS parcel data is updated by the municipal surveyor in conjunction with tax map updates. In other cases the two processes are separate. In many counties, the GIS data is maintained by the county's GIS unit or planning unit. It is important that each municipal assessor learn what local agency is responsible for updating the GIS parcel data for their town, and arrange a process to send map corrections and updates for errors encountered in PAMS to that agency.

NJOIT/OGIS will be arranging processes with each county GIS agency to ensure that updates made at the county level will be conveyed to NJOIT/OGIS in a timely fashion so that they appear in PAMS as soon as possible. Municipal agencies that update their own GIS parcel data should arrange a process to routinely convey their changes to the county so they can be incorporated into the PAMS system. In areas where the county has no central GIS agency or other office with the capacity to handle these updates, the municipal agency should contact NJOIT/OGIS directly.

### **Proposed Data Update Process for PAMS GIS Data**

GIS data of parcel boundaries is a key data element for the mapping components in the PAMS system. Parcel data will continue to be updated by local (county or municipal, depending on local arrangements) agencies, but copies of those data sets will be maintained on a state-owned server that is part of the PAMS system. This document outlines the proposed procedures to be used in keeping the state's copies of the data synchronized with changes that happen at the local level.

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## **One-Time Data Preparation**

Beginning in spring of 2008, NJOIT's Office of GIS will take copies of the most up-to-date parcel data available in each county. These will then be adjusted to align with each other along county boundaries, and the database structures will be normalized to one consistent schema. These steps are necessary in order to create a single unified data set of the whole state (where data are available) for use in PAMS. The normalized data will then be replicated and sent back to each county. Data maintenance at the local level will then continue, using the normalized replicas.

## **Ongoing Updates**

In order for the mapping modules in PAMS to be useful to assessors, the parcel data must be kept up to date to remain in sync with the assessment data as subdivisions and other changes occur. Ideally, the parcel layer should be maintained on an ongoing basis, with changes entered as soon as practical after they are finalized. In cases where staff resources are unavailable to perform data maintenance, updates should be done at a minimum of once a year (more often in areas undergoing significant growth).

Two different options will be available for updating the state's copy of the parcel layer after changes are entered at the local level. For local agencies that have the necessary software and network connectivity, synchronization of database replicas can be configured to happen automatically as often as daily. In this process, which can either be triggered on demand or scheduled, the database server at the local agency connects via the internet to the server at the state and transmits all changes that have occurred since the last synchronization. Using this method, changes made at the local level become available in PAMS almost immediately.

For local agencies that have periodic updates done by consultants or for any that cannot use the automated synchronization method, copies of updated databases can be mailed to the Office of GIS. OGIS staff will then load the new data in, replacing the previous records for that county or town.

## The PAMS PIN

A line item as defined on the Tax List and within PAMS may contain multiple lots; however the GIS parcel layer has polygons for each lot on the tax map. Therefore, an association needs to be created between the “additional lots” on the line item within PAMS and the GIS layer. The additional lot entries will be entered into the PAMS Alternate Index table.

The GIS system will use a database link to access a view of the PAMS database that will index the GIS PIN number to the PAMS additional lots PIN numbers.

The PIN number will be created using an Oracle database function that will simply be a concatenation of the municipal code, block, lot and qualifier as they exist (trimming left and right white space and no data manipulation) and delimiting each with an underscore. The diagram below illustrates how the PINs will be formatted for additional lots and for line items that have qualifiers. Qualifiers with leading or trailing spaces will be trimmed, although, if a space occurs within a qualifier (as in the line in red below), it will not be removed.

Municipal Code	Block	Lot	Qualifier	GIS PIN
1345	12.04	1	C0004	1345_12.04_1_C0004
1345	12.04	1	C4	1345_12.04_1_C4
1345	12.04	1	QFARM	1345_12.04_1_QFARM
1345	12.2	4.05		1345_12.2_4.05
1345	12	2	BLDG HM	1345_12_2_BLDG HM
1345	12	4(RES.)		1345_12_4(RES.)
1345	12	2	W11-C34	1345_12_2_W11-C34

*Please note the records without a qualifier do not have trailing underscores.*

The source information will be PAMS Oracle tables. All data will be selected from the most current tax year’s data in PAMS. This is normally going to be the ‘subsequent’ year that the assessors are working in. Columns that will appear in the view are:

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<b>PAMS_GIS_V View Column</b>	<b>PAMS Column Name</b>	<b>Data Type</b>	<b>Column Format /Size</b>	<b>Comments</b>
PARENT_PIN	BLOCK, LOT, QUALIFIER	C	30	Reformatted to PIN requirements.
CHILD_PIN	ALTID & PARID	C	30	Reformatted to PIN requirements. Additional lots.
PARCEL_KEY	PARID	C	30	PAMS Parcel Key Number

Questions about this process should be directed to:  
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